

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-154 – cancelled without prejudice.

155. (Amended) A dermatologic apparatus comprising

a self-contained housing having an output aperture and configured to be held in a person's hand for manipulation to perform a hair removal dermatologic procedure,

a light source within the housing for providing light of pulse duration t in the range of 4-100 J/cm² and having sufficient fluence at the output aperture to effect hair removal at a target area on a human,

a drive circuit within the housing for powering the light source, and

an optical diffuser within the housing for diffusing the light so that the light emitted from the ~~output~~ output aperture is eye safe has an integrated radiance in Jcm⁻²sr⁻¹ less than $10t^{1/3}$ when the wavelength of the light is 600 to 700 nm, less than $10 \cdot 10^{(\lambda-700)/515} t^{1/3}$ when the wavelength λ of the light is 700 to 1060 nm, and less than $50t^{1/3}$ when the wavelength of the light is 1060 to 1200 nm where t is less than 10 seconds.

156. (Previously presented) The dermatologic apparatus of claim 155 further comprising at least one battery within the housing for energizing the drive circuit.

157. (Previously presented) The dermatologic apparatus of claim 155 further comprising a connector adapted to connect to an external power source for energizing the drive circuit.

158. (Amended) The apparatus of claim 155 further comprising a heat removing element for contacting a region of the epidermis and removing heat from the epidermis during treatment and wherein the temperature of the heat removing

element is at or above a normal ~~skin~~-temperature of the person's skin when the skin is not being treated with the apparatus.

159. (Previously presented) The apparatus of claim 158 wherein the heat removing element comprises a sapphire window.

160. (Previously presented) The apparatus of claim 159 wherein the heat removing element further comprises a thermoelectric heat exchanger.

161. (Previously presented) The apparatus of claim 159 wherein the heat removing element further comprises a fan.

162. (Previously presented) The apparatus of claim 155 wherein the housing is configured to permit the person holding the housing to perform the dermatologic procedure on himself or herself.

163. (Previously presented) The apparatus of claim 155 wherein the light source provides pulses of light.

164. (Previously presented) The apparatus of claim 163 further comprising a mixer for distributing the light from the light source substantially uniformly across an input to the diffuser.

165. (Previously presented) The apparatus of 164 wherein the drive circuit comprises a direct drive circuit.

166. (Previously presented) The apparatus of claim 155 wherein the diffuser is a bulk transmissive diffuser.

167. (Previously presented) The apparatus of claim 155 wherein the diffuser is a reflective diffuser.

168. (Previously presented) The apparatus of claim 165 wherein the housing and its contents has a total weight of no more than one kilogram and a total volume of no more than 1500 cm^3 .

169. (Amended) A dermatologic apparatus comprising

- a self-contained housing having an output aperture and configured to be held in a person's hand for manipulation to perform a hair removal dermatologic procedure,

- a light source comprising a plurality of diode lasers within the housing for providing light pulses of duration t in the range of $4\text{-}100 \text{ J/cm}^2$ and having sufficient fluence at the output aperture to effect hair removal at a target area on a human,

- a drive circuit within the housing for powering the light source,

- a mixer for distributing the light from the light source substantially uniformly across an outlet of the mixer,

- a transmissive diffuser within the housing which receives the light from the outlet of the mixer for diffusing the light pulses so that the light emitted from the output aperture ~~is eye safe~~ has an integrated radiance in $\text{Jcm}^{-2}\text{sr}^{-1}$ less than $10t^{1/3}$ when the wavelength of the light is 600 to 700 nm, less than $10 \cdot 10^{(\lambda-700)/515} t^{1/3}$ when the wavelength λ of the light is 700 to 1060 nm, and less than $50t^{1/3}$ when the wavelength of the light is 1060 to 1200 nm where t is less than 10 seconds, and

- at least one battery within the housing for energizing the drive circuit.

170. (Amended) A dermatologic apparatus comprising

- a self-contained housing having an output aperture and configured to be held in a person's hand for manipulation to perform a hair removal dermatologic procedure,

a light source within the housing for providing light in the range of 4-100 J/cm² and having sufficient fluence at the output aperture to effect hair removal at a target area on a human,

a drive circuit within the housing for powering the light source with pulses of duration t, and

an optical diffuser within the housing for diffusing the light so that the light emitted from the ~~output~~ output aperture is eye-safe has an integrated radiance in Jcm⁻²sr⁻¹ less than $10t^{1/3}$ when the wavelength of the light is 600 to 700 nm, less than $10 \cdot 10^{(\lambda-700)/515} t^{1/3}$ when the wavelength λ of the light is 700 to 1060 nm, and less than $50t^{1/3}$ when the wavelength of the light is 1060 to 1200 nm where t is less than 10 seconds,

a sapphire window positioned at the output aperture for contacting the epidermis of a person undergoing treatment, and

a thermoelectric heat exchanger within the housing in thermal communication with the sapphire window for removing heat from the epidermis during treatment.

171. (Previously presented) The dermatologic apparatus of claim 170 further comprising at least one battery within the housing for energizing the drive circuit.

172. (Previously presented) The dermatologic apparatus of claim 170 further comprising a connector adapted to connect to an external power source for energizing the drive circuit.

173. (Amended) A dermatologic apparatus comprising

a self-contained housing having an output aperture and configured to be held in a person's hand for manipulation to perform a hair removal dermatologic procedure,

a light source within the housing for providing light pulses in the range of 4-100 J/cm² and having sufficient fluence at the output aperture to effect hair removal at a target area on a human,

a drive circuit within the housing for powering the light source with pulses of duration t,

a diffuser within the housing for diffusing the light pulses so that the light emitted from the output aperture ~~is eye safe~~ has an integrated radiance in $\text{Jcm}^{-2}\text{sr}^{-1}$ less than $10t^{1/3}$ when the wavelength of the light is 600 to 700 nm, less than $10 \cdot 10^{(\lambda-700)/515} t^{1/3}$ when the wavelength λ of the light is 700 to 1060 nm, and less than $50 t^{1/3}$ when the wavelength of the light is 1060 to 1200 nm where t is less than 10 seconds, and

at least one battery within the housing for energizing the drive circuit.

174. (Previously presented) The dermatologic apparatus of claim 173 wherein the light source is a plurality of diode lasers.

175. (Previously presented) The dermatologic apparatus of claim 174 wherein the plurality of diode lasers is a plurality of diode laser bars each having a plurality of emitters.

176. (Previously presented) The dermatologic apparatus of claim 173 wherein the light source is a flashlamp.

177. (Previously presented) The dermatologic apparatus of claim 173 further comprising a mixer interposed between the light source and the diffuser for distributing the light pulses substantially uniformly across an input to the diffuser.

178. (Previously presented) The dermatologic apparatus of claim 173 further comprising heat removal means for removing heat from a patient's skin during performance of the dermatologic procedure.